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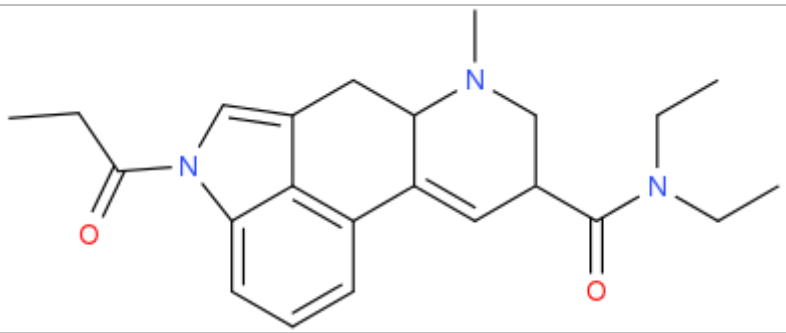
ANALYTICAL REPORT[1]

1P-LSD (C23H29N3O2)

N,N-diethyl-7-methyl-4-propanoyl-6,6a,8,9-tetrahydroindolo[4,3-fg]quinoline-9-carboxamide

Remark – other NPS detected: none

Sample ID:	1322-15
Sample description:	blotter - na
Sample type:	test purchase /RESPONSE -purchasing
Date of sample receipt (M/D/Y):	10/28/2015
Date of entry (M/D/Y) into NFL database:	10/28/2015
Report updates (if any) will be published here:	http://www.policija.si/apps/nfl_response_web/seznam.php

Substance identified (in SFC)-structure[2] (base form)	
Systematic name	N,N-diethyl-7-methyl-4-propanoyl-6,6a,8,9-tetrahydroindolo[4,3-fg]quinoline-9-carboxamide
Other names	
Formula (per base form)	C23H29N3O2
M_w (g/mol)	379,22
Salt form	tartrate (and chloride ions)
StdInChIKey	JSMQOVGXBIDBIE-UHFFFAOYSA-N
Compound Class	Indolalkylamines (fe tryptamines)
Other NPS detected	none
Add.info (purity..)	pure (on blotters) ,

[1] This report has been produced with the financial support of the Prevention of and fight against crime Programme of the European Union (grant agreement number JUST/2013/ISEC/DRUGS/AG/6413). The contents of this report are the sole responsibility of the National Forensic Laboratory and can in no way be taken to reflect the views of the European Commission.

[2] Created by OPSIN free tool: http://opsin.ch.cam.ac.uk/ **DOI:** 10.1021/ci100384d

Report updates

date	comments (explanation)

Instrumental methods (if applied) in NFL

1. GC-MS (Agilent): GC-method is RT locked to tetracosane (RT=9.53 min). Injection volume 1 ml and split mode (1:50) . Injector temperature: 280 ^{0}C. Chromatographic separation: on column HP1-MS (100% dimethylpolysiloxane), length 30 m, internal diameter 0.25 mm, film thickens 0.25 mm. Carrier gas He: flow-rate 1.2 ml/min. GC oven program: 170 ^{0}C for 1 min, followed by heating up to 293 ^{0}C at a rate of 18 ^{0}C/min, hold for 6.1 min, than heating at 50 ^{0}C/min up to 325 ^{0}C and finally 2.8 min isothermal. MSD source EI = 70 eV. GC-MS transfer line T= 235^{0}C, source and quadropole temperatures 280^{0}C and 180^{0}C, respectively. Scan range m/z scan range: from 50 (40) to 550 amu.

2. HPLC-TOF (Agilent): 6230B TOF with Agilent 1260 Infinity HPLC with binary pump, column: Zorbax Eclipse XDB-C18, 50 x 4.6 mm, 1.8 micron. Mobile phases (A) 0.1% formic acid and 1mM ammonium formate in water; (B) 0.1% formic acid in methanol (B). Gradient: starting at 5% B, changing to 40% B over 4 min, then to 70% over 2 min and in 5 min to 100%, hold 1 min and back to 5%, equilibration for 1.7 min. The flow rate: 1.0 ml/min; Injection volume 1 µl. MS parameters: 2GHz, Extended Dynamic range mode to a maximum of 1700 amu, acquisition rate 1.30 spectra/sec. Sample ionisation: by Agilent Jet Stream technology (Dual AJS ESI). Ion source: positive ion scan mode with mass scanning from 82 to 1000 amu. Other TOF parameters: drying gas (N2) and sheath temperature 325 °C; drying gas flow rate 6 l/min; sheath gas flow rate 8 l/min; nebulizer 25 psig; Vcap. 4000 V; nozzle 2000 V; skimmer 65 V; fragmentor 175 V and Octopole RF 750 V.

3.FTIR-ATR (Perkin Elmer): scan range 4000-400 cm-1; resolution 4cm-1

4. GC- (MS)-IR condensed phase (GC-MS (Agilent) & IR (Spectra analyses-Danny)
GC-method: Injection volume 1 ml and split mode (1:5). Injector temperature 280 ^{0}C. Chromatographic separation as above **(1).** Split MS : IR = 1:9.
MSD source EI = 70 eV. GC-MS transfer line T= 235^{0}C, source and quadropole temperatures 280^{0}C and 180^{0}C, respectively. Scan range m/z scan range: from 50 (40) to 550 amu.
IR (condesed phase): IR scan range 4000 to 650, resolution 4 cm^{-1}.

5. **IC** (anions) (Thermo Scientific, Dionex ICS 2100), Column: IonPac AS19, 2 x 250mm; Eluent: 10mM from 0 to 10 min, 10-58 mM from 10 to 40min; Flow rate: 0.25 ml/min; Temperature: 30˚C; Suppressor: AERS 500 2mm, suppressor current 13mA; Inj. Volume: 25 µl

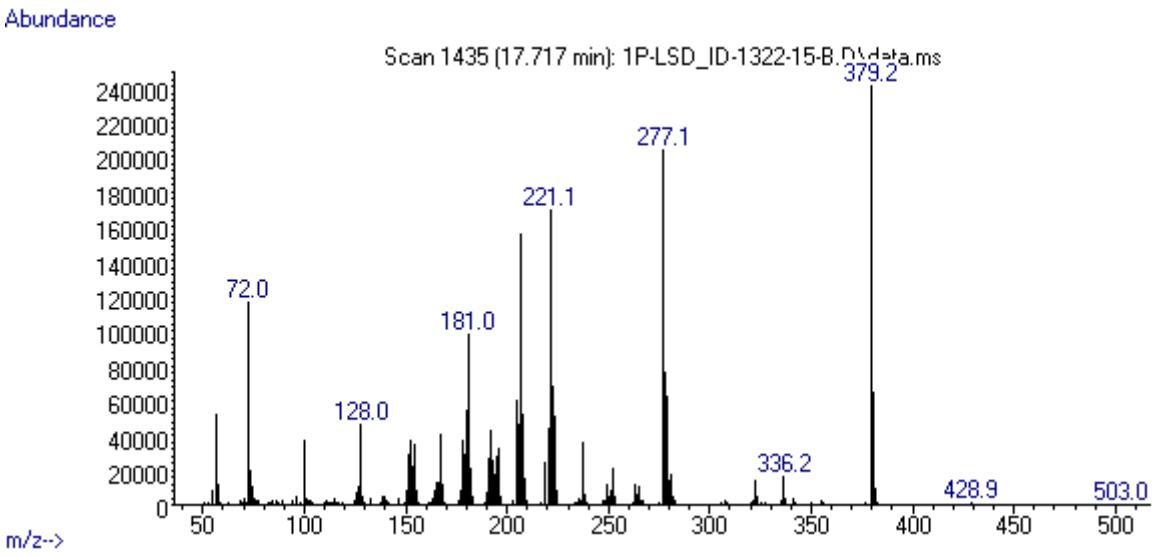
Supporting information

Solubility in	result/remark
CH2Cl2	extracted from blotter
MeOH	/
H_2O	/

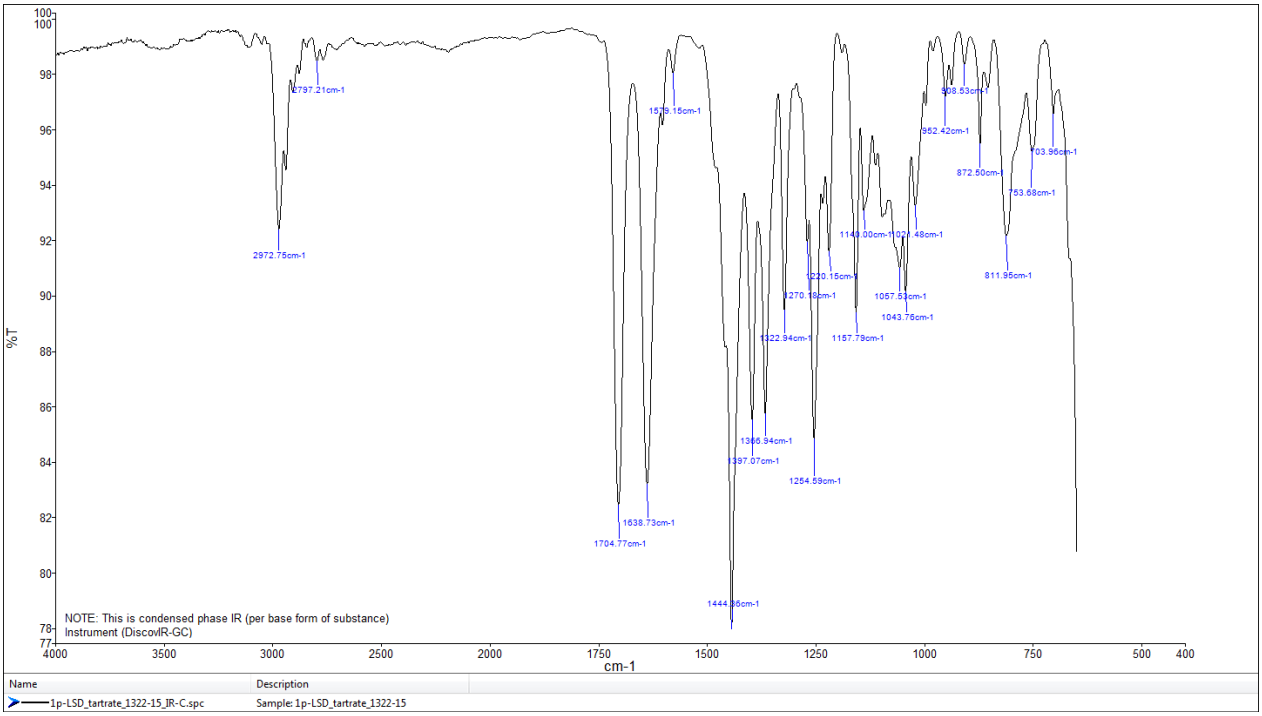
Analytical technique:	applied	remarks
GC-MS (EI ionization)	+	NFL GC-RT (min): 17,72 BP(1): 379; BP(2): 277,BP(3) :221,
HPLC-TOF	+	Exact mass (theoretical): 379,226; measured value Δppm:; formula:C23H29N3O2
FTIR-ATR		/
FTIR (condensed phase) always as base form	+	
IC (anions)	+	
NMR		pending
validation		
other		

ANALYTICAL RESULTS

MS (EI)



IR (condensed phase)



TOF REPORT

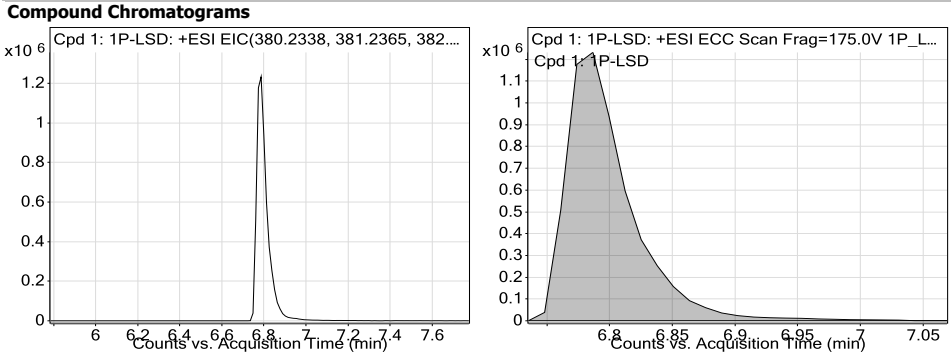
Data File	1P_LSD_1322-15_TOF.d	**Sample Name**	1P-LSD
Sample Type	Sample	**Position**	P1-D3
Instrument Name	6230B TOF LC-MS	**User Name**	TG
Acq Method	general-28052015-XDB-C18-ESI-poz.m	**Acquired Time**	11/2/2015 11:43:22 AM
IRM Calibration Status	Success	**DA Method**	Drugs_NFL.m
Comment	extract in MeOH		

Compound Table

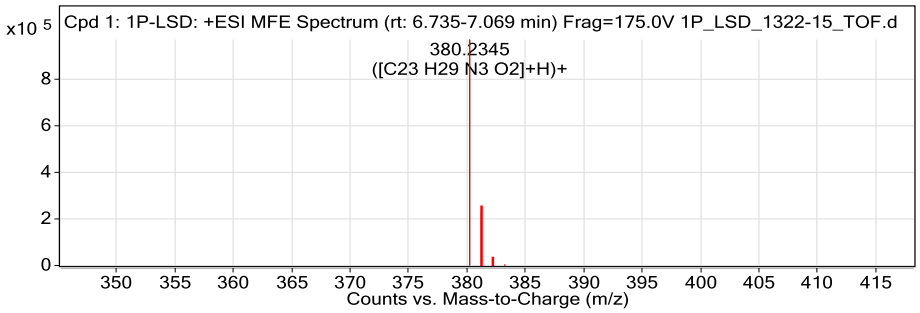
Label	Compound Name	Obs. RT	Obs. Mass
Cpd 1: 1P-LSD	1P-LSD	6.786	379.2271

Name	*Obs. m/z*	Obs. RT	Obs. Mass	DB RT	DB Formula	DB Mass	DB Mass Error (ppm)
1P-LSD	380.2345	6.786	379.2271	6.796	C23 H29 N3 O2	379.226	-2.99

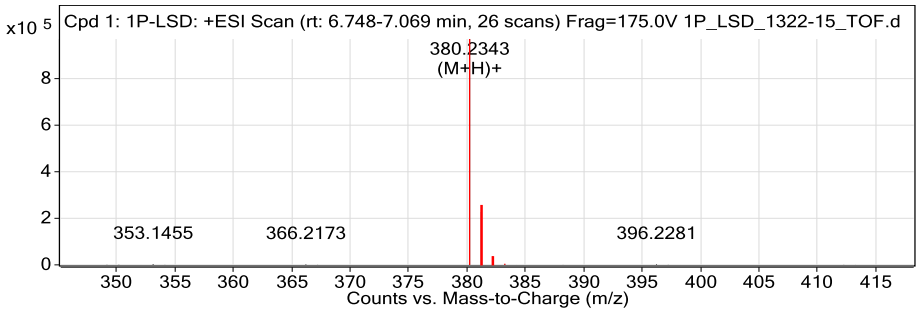
Compound Chromatograms



MFE MS Zoomed Spectrum



MS Zoomed Spectrum



MS Spectrum Peak List

Obs. m/z	Charge	Abund	Formula	Ion/Isotope
380.2345	1	970349.44	C23 H29 N3 O2	(M+H)+
381.2373	1	227565.46	C23 H29 N3 O2	(M+H)+
382.2396	1	22670.99	C23 H29 N3 O2	(M+H)+
383.2422	1	1714.36	C23 H29 N3 O2	(M+H)+

--- End Of Report ---

Peak Integration Report

Sample Name:	**1P-LSD_1322-15_IC**	*Inj. Vol.:*	**25,00**
Injection Type:	**Unknown**	*Dilution Factor:*	**1,0000**
Program:	**ANIONI**	*Operator:*	**kemija**
Inj. Date / Time:	**02-nov-2015 / 16:11**	*Run Time:*	**42,00**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Amount mg/L
1,00	9,46	**Chloride**	BMB	0,55	2,23	n.a.
2,00	24,55	**Tartrate**	BMB	1,36	5,43	n.a.
		TOTAL:		1,91	7,66	0,00